IN THE CLAIMS

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Where claims have been amended and/or canceled, such amendments and/or cancellations are done without prejudice and/or waiver and/or disclaimer to the claimed and/or disclosed subject matter, and the applicant and/or assignee reserves the right to claim this subject matter and/or other disclosed subject matter in a continuing application.

Listing of Claims:

Claims 1-22 (Canceled)

23. (New): An article of manufacture comprising a storage medium having instructions stored thereon that, if executed, result in:

receiving content for transmission via a multicarrier wireless communication channel; and

generating a rate-one, space-frequency code matrix from the received content for transmission on the multicarrier wireless communication channel from three or more of transmit antennae.

24. (New): An article of manufacture as claimed in claim 23, wherein the received content is a vector of input symbols (s) of size Nc x 1, wherein Nc is the number of subcarriers of the multicarrier wireless communication channel.

25. (New): An article of manufacture as claimed in claim 24, said generating a rate-one space frequency code matrix comprising:

dividing the vector of input symbols into a number G of groups to generate subgroups; and

multiplying at least a subset of the subgroups by a constellation rotation precoder to produce a number G of pre-coded vectors (vg).

26. (New): An article of manufacture as claimed in claim 25, wherein the instructions, if executed, further result in:

dividing each of the pre-coded vectors into a number of LM x 1 subvectors; and

creating an M x M diagonal matrix , where k=1…L from the subvectors.

27. (New): An article of manufacture as claimed in claim 26, wherein the instructions, if executed, further result in:

interleaving the L submatrices from the G groups to generate an M x Nc space-frequency matrix.

28. (New): An article of manufacture as claimed in claim 27, wherein the space-frequency matrix provides M N L channel diversity, while preserving a code rate of 1 for any number of transmit antenna(s) M, receive antenna(s) N and channel tap(s) L.

29. (New): An article of manufacture as claimed in claim 23, wherein the space-frequency matrix provides M N L channel diversity, while preserving a code rate of 1 for any number of transmit antenna(s) M, receive antenna(s) N and channel tap(s) L.